259-178.R
366-66
59

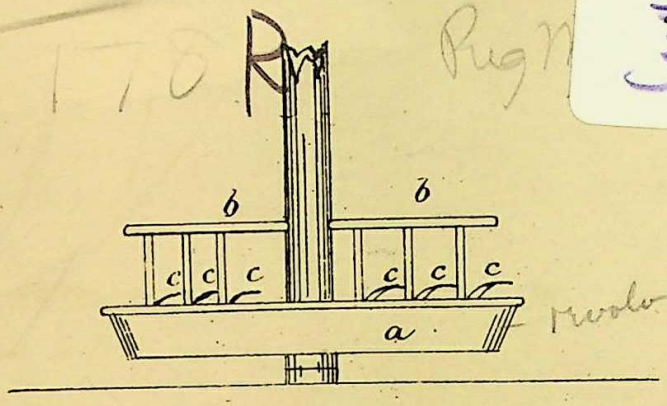

FIG. 1

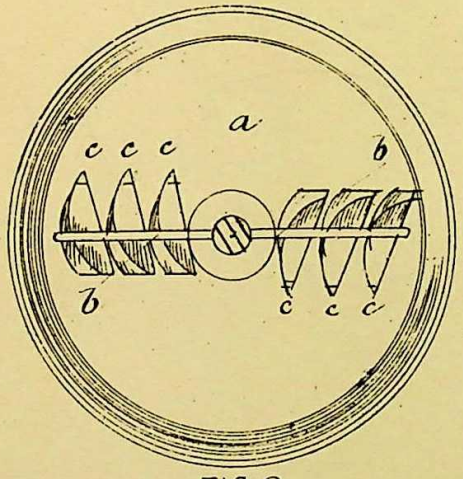

FIG. 2

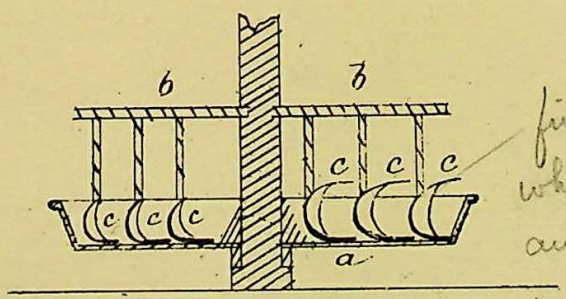

FIG. 3

[This Drawing is a reproduction of the Original on a reduced scale]

LONDON.—Printed by DARLING and SON Ltd.
for Her Majesty's Stationery Office. 1890.
Malby & Sons, Photo-Litho.

Mortar Mixers

11

N° 2798 A.D. 1889

Date of Application, 18th Feb., 1889
Complete Specification Left, 18th Nov., 1889—Accepted, 18th Jan., 1890

PROVISIONAL SPECIFICATION.

Improvements in Machines for Mixing Concrete and similar Substances.

I, JAMES STANSFIELD, of Todmorden, in the County of York, Asphalte Manufacturer, do hereby declare the nature of this Invention to be as follows :—

I take a revolving circular pan or vessel, similar to that used in a mortar, or pug, mill, and geared in a more or less similar manner to any suitable motive power. Extending on each side from the framework, that supports the centre shaft of the pan, or any other suitable fixed position, I form or attach a rigid projection or bar, to which are attached on each side the shaft in a suitable manner one or more plates of steel or other suitable metal, formed and curved in a similar manner to a ploughshare. The revolution of the pan forces the concrete or other material against the plates, which turn it over and mix it. The plates are arranged in different manners so as to suit the substances mixed and thoroughly mix them.

Dated this 16th day of February 1889.

JOHN HENRY TOPHAM.
46A, Market Street, Manchester, Agent to Applicant.

COMPLETE SPECIFICATION.

Improvements in Machines for Mixing Concrete and similar Substances.

I, JAMES STANSFIELD, of Todmorden, in the County of York, Asphalte Manufacturer, do hereby declare the nature of this Invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

It consists of a circular revolving pan or receptacle similar to that employed in an ordinary pug or mortar mill and actuated in a similar manner, extending from the central post or other fixed portion of which is a suitable bar or other projection to which are attached blades or plates of metal bent in the form of a ploughshare, these rest against the bottom of the pan and as it revolves the matter to be mixed against them, they turn it over and thoroughly mix it.

It will be perceived that instead of using fixed plates and a revolving pan, I may reverse this and use plates revolving round a centre in a fixed pan. I may also utilize an ordinary mortar or pug mill for this purpose by removing the rollers and affixing my curved plates to the axles upon which they revolve ; or use them in combination with the rollers, by attaching them by a suitable projection to the central post.

In order that the foregoing may be better understood, I send herewith a sheet of Drawings in which :—

Fig. 1 shows an elevation, Fig. 2 a plan, and Fig. 3 a section in elevation of my apparatus.

In all the Figs. *a* indicates the revolving pan, *b* the projection, and *c* the curved blades.

[*Price 6d.*]

Stansfield's Improvements in Machines for Mixing Concrete and similar Substances.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is :—

1st. The combined apparatus, substantially as described and shown hereinbefore, and in the accompanying drawing for the purpose set-forth.

Dated this 16th day of November 1889.

JOHN HENRY TOPHAM,
46A, Market Street, Manchester, Agent to Applicant.

London : Printed for Her Majesty's Stationery Office, by Darling & Son, Ltd.—1890.